

### Claims

1. A wireless data output communication method, comprising:  
connecting a wireless data output communication device to an external interface of a first computing device with a data output service;  
installing and executing on the first computing device a computer software application from a memory component of the communication device, the computer software application providing access to the data output service of the first computing device for a second computing device via wireless communication;

transmitting by wireless communication data content from a second computing device to the communication device;

passing the data content from the communication device to the first computing device; and

passing the data content from first computing device to the data output service associated with the first computing device.

2. The method of claim 1 in which the computer software application is installed and executed automatically upon connection of the communication device to the external interface of the first computing device.

3. The method of claim 2, further comprising:

disconnecting the wireless data output communication device from the external interface of the first computing device after passing the data content from computer software application to the data output service; and

automatically uninstalling the computer software application from the first computing device upon disconnection of the communication device from the external interface of the first computing device.

4. The method of claim 1 in which transmitting the data content to the communication device includes storing the data content in the memory component of the communication device.

5. The method of claim 4 in which the memory component includes a program memory segment and a file storage segment, the file storage segment being accessible by the second computing device to store the data content, and the program memory segment storing the computer software application and not being accessible by the second computing device.

6. The method of claim 1 in which the external interface corresponds to a universal serial bus interface.

7. The method of claim 1 in which the wireless communication corresponds to a Bluetooth standard of wireless communication.

8. The method of claim 1 in which the wireless communication does not correspond to a Bluetooth standard of wireless communication.

9. The method of claim 1 in which the data output service includes printing the data content to one or more selected printers.

10. The method of claim 1 in which the data output service includes displaying the data content with a selected application resident on the first computing device.

11. The method of claim 10 in which the selected application is a presentation application and displaying the data content includes projecting a presentation onto a display screen.

12. The method of claim 1 in which the device is configured as a dongle.

13. The method of claim 1 in which the second computing device includes a wireless cellular telephone.

14. The method of claim 1 in which the second computing device includes a portable computer.

15. The method of claim 1 in which the second computing device includes a digital camera.

16. The method of claim 1 in which the computer software application includes a wireless communication stack component.

17. The method of claim 1 in which the output service includes one or more printers.

18. The method of claim 1 further comprising selecting one or more printers at the second computing device prior to transmitting by wireless communication computer information from the second computing device to the first computing device.

19. A wireless data output communication method, comprising:  
transmitting by wireless communication data content from a first computing device to a wireless data output communication device;

storing the data content in a memory component of the communication device;

connecting the communication device to an external interface of a second computing device with a data output service;

installing and executing on the second computing device a computer software application from the memory component, the computer software application providing access to the data output service of the first computing device;

passing the data content from the communication device to the computer software application on the second computing device; and

passing the data content from computer software application to the data output service of the second computing device.

20. The method of claim 19 in which the computer software application is installed and executed automatically upon connection of the communication device to the external interface of the second computing device.

21. The method of claim 20, further comprising:

disconnecting the wireless data output communication device from the external interface of the second computing device after passing the data content from computer software application to the data output service; and

automatically uninstalling the computer software application from the second computing device upon disconnection of the communication device from the external interface of the second computing device.

22. The method of claim 19 in which the computer software application includes a wireless communication stack component.

23. The method of claim 19 in which the communication device includes a battery operable to power operation of the communication device.

24. A computer readable medium of a dongle device having a device interface connectable to an external interface of a first computing device having a data output service, comprising:

a computer software application stored on the medium and being installable on the first computing device to deliver data content to the data

output service on the first computing device to obtain output of the data content with the data output service; and

autorun software stored on the medium and operable to install and launch the computer software application on the first computing device automatically upon connection of the device interface to the external interface of the first computing device.

25. The computer readable medium of claim 24 further comprising the data content stored on the medium.

26. The computer readable medium of claim 25 in which the data content is stored on the medium before connection of the device interface to the external interface of the first computing device.

27. The computer readable medium of claim 25 in which the data content is stored on the medium after connection of the device interface to the external interface of the first computing device.

28. The computer readable medium of claim 24 in which the medium includes a secure storage segment and in which the computer software application and the autorun software are stored in the secure storage segment.

29. The computer readable medium of claim 28 in which the medium includes a nonsecure storage segment, the medium further comprising the data content stored in the nonsecure segment of the medium.

30. A wireless data transfer method, comprising:

discovering a computing device from among plural computing devices by means of wireless communication from a mobile device, each computing device having connected to it a communication device that enables wireless digital data transfer and including a wireless component for wireless communication and a memory component for receiving and storing data;

selecting a selected communication device for a wireless data transfer by means of a selection on the mobile device;

transmitting by wireless communication digital data from the mobile device to the selected communication device;

storing the digital data to a public memory component of the communication device.

31. The method of claim 30 further comprising copying the digital data from the public memory component of the selected communication device to the connected computing device.

32. A wireless data retrieving method, comprising:

copying digital data from a first computing device to a public segment of a memory component of a communication device for enabling transfer of the digital data, the communication device being connected externally to the first computing device through an external interface and including a wireless component for wireless communication;

from a second computing device, discovering and selecting the communication device connected to the first computing device;

selecting the digital data for wireless retrieval to the second computing device; and

transmitting the digital data by wireless communication from the communication device to the second computing device.

33. A wireless data output method, comprising:

connecting a communication device to an external interface of a first computing device, the communication device including an interface connectable to the external interface and also including a memory component storing a data output software application that is operable to install and execute automatically on the first computing device when the communication device interface is connected to the external interface;

automatically installing and executing the data output application on the first computing device upon connecting the communication device to the external interface;

discovering through the first computing device a second computing device having a data output service at;

selecting an output device associated with the second computing device for outputting digital content;

transmitting via wireless communication digital content from the first computing device to the second computing device;

passing the data content to the selected output device associated with the second computing device for output.

34. A wireless data storing method, comprising:

transmitting by wireless communication digital data from a first computing device to a wireless data output communication device;

storing the digital data in a memory component of the communication device;

connecting the communication device to an external interface of a second computing device having a synchronization software;

automatically launching the synchronization software in the second computing device, the synchronization software further retrieving the digital data from the communication device, storing the digital data to a storage component of the second computing device, and removing the digital data from the memory component of the communication device, enabling the communication device to further receive and store digital data from the first computing device.

35. The method of claim 34 in which the first computing device is a digital camera.

36. The method of claim 34 in which the communication device is a dongle.

37. The method of claim 34 in which the communication device includes a battery to power operation of the communication device.

38. A wireless data output method, comprising:

connecting a communication device to an external interface of a first computing device, the communication device including an interface connectable to the external interface and also including a memory component storing a data output software application that is operable to install and execute automatically on the first computing device when the communication device interface is connected to the external interface;

automatically installing and executing the data output application on the first computing device upon connecting the communication device to the external interface;

discovering through the first computing device a second computing device having a data output service at;

selecting an output device associated with the second computing device for outputting digital content;

transmitting via wireless communication digital content from the first computing device to the second computing device;

passing the data content to the selected output device associated with the second computing device for output.